cases of amyotrophic lateral sclerosis. Two of the eight cases were ascending and at first unilateral in type, and later the paralysis became a triplegia. One began as a hemiplegia, and later the other side of the body became affected. Two may be regarded as uncomplicated cases of primary degeneration of the pyramidal tracts without implication of the nerve cells of the anterior horns of the spinal cord, and in neither of these cases was muscular atrophy present. In one case only could degeneration be traced as high as the motor cortex, but in two it could be traced into the internal capsule, and in two into the cerebral peduncle. In three of the cases the degeneration extended as high as the pons and not beyond. One of the cases showed that great spasticity of the limbs may be caused by a degeneration of the pyramidal tracts that is barely detectable, and that where a limb is spastic from such slight degeneration disease of the cells of the anterior horn on the same side as the degeneration may assist in the formation of contracture by increasing the paralysis. Some of the cases showed that disturbance of the bladder and rectum may be caused by degeneration of the central motor tracts, even where the posterior columns and the nerve cells of the anterior horns are not diseased; and that degeneration of the posterior columns is not to be diagnosed simply because this sign exists.

Dr. Spiller thinks it is questionable whether in amyotrophic lateral sclerosis the process is ascending. It is possible that there is a gradual death of the portions of the central motor neurones most remote from the cells of origin, and that the extent of the nerve fibers diseased varies in different cases, but that the whole portion of each fiber that is affected is diseased usually almost simultaneously, although the individual nerve fibers become affected at different periods.

One of the cases belonged to the type of primary uncomplicated unilateral degeneration of the pyramidal tract, although later the other pyramidal tract became affected; another belonged at first to the type of unilateral amyotrophic lateral sclerosis. (Author's abstract.)

Revue de Psychiatrie et de Psychologie Experimentale

(May, 1905.)

1. The Etiological Rôle of Syphilis in the Psychoses. MARCHAND.
2. The Curve of Intellectual Work After Kraepelin. VASCHIDE.
3. Attempted Homicide Committed by a General Paralytic with Melancholic Tendencies. DAMAYE.

1. *Syphilis in the Psychoses.*—The author concludes as follows: Syphilis by its toxin may determine the appearance of psychoses in predisposed subjects. This etiology of psychoses is rare. The mental malady appears almost always in the months following the infection. Specific cutaneous lesions coexist frequently with mental troubles. Syphilis, benign or virulent, may accompany mental diseases. The most frequent mental disorders are melancholia, mania, hallucinatory delirium and stupor. These psychoses terminate nearly always in recovery. Specific treatment, according to numerous clinicians, shortens the duration of the malady. Syphilis can determine mental disorders (melancholia, suicide) by hypochondrial ideas.

2. *Curve of Intellectual Work.*—The perpetual conflict between psychologists and philosophers is well known. The systematic researches of Kraepelin are of a nature to throw light on modern psychology. He has endeavored to find the laws governing the normal human mentality, and to this end has for some years, at Heidelberg, pursued investigations in the question of intellectual work.

I. *The curve of intellectual work.* Kraepelin attempts to show what changes are reproduced in intellectual work under the influence of internal causes without changing external conditions.

In order to measure intellectual work one is given simple problems, of which he is to solve the greater number in a given time, usually five minutes. The resulting curves show various oscillations, which he endeavors to explain. Nearly all the curves descend towards the end. This is due to fatigue. Some do not descend. This is due to practice. In general, if exercise dominates the curve rises. It descends when fatigue is stronger than practice. Generally the curve descends in the evening more quickly than in the morning. But this differs in different individuals according as they are accustomed to working in the morning or in the evening. In general, we consider the lowering of the capacity for work as a symptom of fatigue only when it progresses with the work, and not when it decreases as the work is prolonged. The introduction of food also, independent of fatigue, diminishes the capacity for work. Digestion and the distribution of blood play an important rôle here. These conditions and others, such as sadness, distraction, resemble fatigue, but the curve rises as it does after poisons (ether, alcohol) when their effects have worn off. Fatigue can, too, be compensated by an effort of the will. One could say in general that the work curve was an expression of the relations between practice and fatigue, but this is not strictly true. Practice leaves durable traces in the mind, while fatigue is removed by sleep and food. Thus we arrive at the result that with more and more practice the curve begins to descend more and more quickly, due not to greater fatigue but to a lessened influence of practice. If work is prolonged the descent of the curve is more and more rapid. The relation between fatigue and exercise is more and more unfavorable. This effect could be produced within certain limits by the decrease of practice, but this decrease for advance degrees of practice is very slow, and does not explain the sudden descent of the curve. This would seem to be because, as the fatigue increases, the interior resistance to the work increases so that in order to accomplish the same work one must expend a greater and greater force. Nevertheless this seems improbable from the work of Oseretzkowsky and Kraepelin. Rivers and Kraepelin found that the loss of the effect due to practice for each half hour of work was the day after thrice as great for a work of two hours as for a work of a half hour. It seems that the capacity of practice and fatigue are the common expression of certain fundamental qualities of the psychic personality.

II. *The pauses in the curve of intellectual work.* The phenomena of fatigue disappear quickly, while practice leaves durable traces. The persistence of these traces may extend over a long time. After two exercises of adding of two hours each Kraepelin found the remains of practice three months later. Intervals affect the practice curve variously. The loss is greater after certain hours of the day than after a night's sleep. Habit also modifies the curve. By short pauses the effects of fatigue can be to an extent balanced. Intellectual work seems to produce general fatigue, while muscles may be recuperated by stopping their use. There is a *pause favorable* depending on the duration and nature of the work, and which determines the relation between practice and fatigue. Lindley found this pause in three subjects from fifteen to sixty minutes. Before the *pause favorable* the residues from practice and fatigue are in equilibrium. If the work is interrupted at this moment it should have the same value as taken after this pause—it is called the pause of equilibrium. The greater the fatigue the more the influence of rest is noticeable.

III. *Construction of the curve of intellectual work.* The construction of the curve is very difficult, the different factors causing variation are so closely connected. For instance, in studying the effects of pauses it is difficult to estimate their true value, because after a pause the other factors have not remained unchanged.

What follows is a brief discussion of the methods of obtaining a normal curve and curves of practice, habit, excitation, will and fatigue.

3. *Homicide by a Paralytic.*—The author describes a case of attempted homicide by a paretic, and cites several cases from the literature. He concludes that dangerous tendencies are not rare, and argues for more careful surveillance of this class of patients. W. A. WHITE.

Review of Neurology and Psychiatry

(Vol. 3, 1905, No. 2, February.)

1. The Endocellular Fibrillary Reticulum and its relation with the Fibrils of the Axis-cylinder. A. DONAGGIO.
2. Some Aspects of Alcoholism (Continued). A. HILL BUCHAN.
3. A Micro-chemical Examination of the Phosphorous in Blood-Clots. JOHN TURNER.

1. *The Endocellular Fibrillary Reticulum.*—The author believes it is quite evident that the fibrils of the axis-cylinder take their origin from the endo-cellular reticulum. The seat of origin varies in different cells, but is always demonstrable under his special methods of staining, which he describes in detail in his paper. His researches prove the existence of two types of cells: The first is characterized by cells provided only with an endo-cellular fibrillary reticulum, wihch is in relation with the fibrils of the protoplasmic processes; the second is more complex and includes the great majority of the nerve-cells. These possess two fibrillary systems, (*a*) fibrils forming the endo-cellular reticulum; (*b*) fibrils passing through the cell, but preserve their individuality. Donaggio states that if we admit that the fibrils possess the function of conducting nerve-currents, it is fair to infer that the endo-cellular fibrillary reticulum is an apparatus of reception and of synthesis of the stimuli transmitted to it by the cellulipetal paths.

2. *Some Aspects of Alcoholism* (Continued).—Continuing his statistical study of the cases of alcoholism which he began in the January number, 1905, Buchan states that out of the total number of 418, 62 had definite symptoms of neuritis. The average age of the cases of neuritis for both sexes was 40 years. As regards subjective sensations under the nervous system, numbness was found more frequently than pain. Sensibility to tactile impressions entered as normal in 19 cases, delayed in 3, and impaired in 9 cases of the 418. Hyperesthesia to deep pressure on muscle and nerves played rather a prominent rôle, and was found in all 62 cases. The tremor movements rendered investigation as to the occurrence of ataxia difficult. The knee-jerks he found increased in a large number of cases. There was a preponderance of affection of the lower over the upper extremities, and of paralysis of the extensors over the flexors, and also of the posterior over the anterior aspects of the limbs. The most frequent departure from the normal was the disturbance in regard to pain in the lower extremities, this being almost always in the form of muscular hyperesthesia. And the almost invariable seat of pain was in the calves. As to mental symptoms, his observations did not materially differ from the usual picture of Korsakoff's psychosis. Of the 62 cases 31 recovered, 13 improved, 7 were sent to an asylum, 3 transferred to a general ward and 8 died.

3.. *A Micro-Chemical Examination of the Phosphorus in Blood-Clots.*—Turner has made a series of experiments on blood-clots, trying to discriminate between the clotting which is the result of vital action and that which occurs on the application of the alcoholic fixative used in preparing the tissues for sections, or after the death of the cells. By